MULTIMEDIA UNIVERSITY

FINAL EXAMINATION

TRIMESTER 2, 2019/2020

BSI3124 – SEMINAR IN INVESTMENT
(All sections / Groups)

11 MARCH 2020
9.00 a.m. – 11.00 a.m.
(2 Hours)

INSTRUCTIONS TO STUDENTS

1. This question paper consists of **5** pages. There are a total **4** questions.

2. Answer **ALL** questions.

3. Marks are shown at the end of each question.

Answer all questions in the answer booklet provided.

QUESTION 1 (25 marks)

(a) Read the extracted journal and answer the following questions (i) and (ii).

The impact of social and environmental sustainability on financial performance: A global analysis of the banking sector

1. Introduction
In today's socially conscious market environment, sustainability trends have altered how businesses run their operations. This is supported by international bodies like United Nations (UN), Global Reporting Initiative (GRI), Sustainability Accounting Standards Board (SASB), World Business Council for Sustainable Development (WBCSD), and Principles for Responsible Investment (PRI) that have set the principles, guidelines, and best practices for corporations to manage their various functions and assets in a more sustainable multi-stakeholder manner. As such, this trending concept has become the new language of business, whereby firms not only need to sustain their financial strength (for shareholders) but also their social and environmental impacts on the broader stakeholders namely the community, consumers, customers, suppliers, employees, investors and regulatory bodies. The broad perspective on organizational value has morphed far beyond the domain of financial and accounting statements.

Social and environmental sustainability is not a new concept. The term, 'ESG' and the idea was first proposed in June 2004 by the UN Global Compact's initiative named "Who Cares Wins" to focus on materiality and interplay between environmental, social and governance issues. There is increasing number of literature which confirms sustainability factors, when integrated into portfolio strategy and investment analysis, can impact investors potential long-term performance (Auer and Schuhmacher, 2016; Nagy et al., 2013, 2015; Novy-Marx, 2013; Vilanova et al., 2009). Investors can find incipient market opportunities with companies that place management of sustainability factors at the core of their businesses. Investment managers and financial analysts who can interpret and relate sustainability factors to a company's future prospects can potentially develop a competitive advantage.

The banking sector also plays an important role in the sustainable development. Currently, sustainability is one of the most significant trends in the industry. It could be in the form of investors' desire for sustainable responsible investing (SRI) or corporate management's focus on corporate social responsibility (CSR) or investors' focusing on sustainability and environmental impact issues. According to Sustainalytics Thematic Research (2014), banks are the heart of all modern markets – they pump financial means like lifeblood through the system, enabling innovation, economic growth, and prosperity. However, the role of financial establishments often goes beyond their original function as intermediaries. It is noted that the core function of banks as enablers of economic growth and prosperity remains undisputed, but civil society, particularly in the developed world, is increasingly concerned

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about how they fulfil this purpose. Many have expressed the need for "moral capitalism" that is in tune with social and environmental concerns. Banks have been criticized by civil society groups wanting a large stewardship commitment, regarding their involvement in aiding businesses and development that immensely harm the environment, undermine human rights, and are connected to severe adverse impact on local communities. Although in all these cases, financial institutions do not directly affect the society and environment, they have the capability to do so indirectly via their influence on the businesses they finance.

Despite the promising evidence of the Corporate social performance (CSP)-Corporate financial performance (CFP) and Corporate environmental performance (CEP)-Corporate financial performance (CFP) relations across various business sectors, the findings from banking sector remain limited and inconclusive. Some empirical studies in banking industry discover a positive link between financial performance of the banks and social performance (Simpson and Kohers, 2002; Cornett et al., 2014) governance (Aebi et al., 2012), and environmental-friendly performance (Jo et al., 2014). As banks work to restore their credibility following the global financial crisis and contribute to financial stability, timely and strategic integration of sustainability into their businesses remains a crucial agenda for change. Sustainability can be practiced from the inside (banks internal operations) to the outside (banks financing and investment portfolio, client and community relationships). Nevertheless, other empirical research reveals an opposite evidence: financial performance has a negative relation (Soana, 2009; Nollet et al., 2016), or no significant relationship with sustainability business practices (Chih et al., 2010).

The main objective of this research is to identify and understand the impact of banks' social and environmental performance on their financial performance. This research aims: (i) to identify the significant or material data or information that may have an impact on bank financial performance, (ii) to examine the means through which the social and environmental performance values translate into the banks' financial performance, and (iii) to assess whether social and environmental indicators, have a significant impact on banks' financial performance, and (iv) lastly, to identify the threshold of social and environmental impact on the banks profitability which may vary depending on bank size. In what follows, we summarize the key justifications and findings of the research.

While banks might understand the relationship between the sustainable performance and their business performance, banks need to be able to value map the material social and environmental indicators into business performance with reasonable data availability and quality (Khan et al., 2015; Sala et al., 2015; Serafeim et al., 2016). This in turn will help investors (including current and future shareholders) integrate their sustainability evaluation into the decision making and business processes. An increasing number of investors commit to the integration of social and environmental sustainability in their investment process. However, which of these social and environmental sustainability data should be taken into consideration is still a matter of further exploratory discussion and debate.

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This study has considered the materiality aspects of social and environmental sustainability affecting financial institutions. Materiality is key in the study of sustainability performance in the banking sector. Without materiality determination, the study would not be able to open the door to measuring sustainability effectively if not accurately. Therefore, in order to measure the impact of banks' social and environmental sustainability performance, the study must identify the factors that materially affect the bank performance. This study uses material dataset in assessing the impact of social and environmental sustainability performance on banks' financial performance. This way, the study fills the gap in the existing empirical literature, which mainly uses the non-material dataset.

Secondly, previous studies were not able to identify the channels through which the social and environmental sustainability performance generate positive impact towards the financial performance of bank. As such this study expanded the understanding of the relationships among the identified variables in the model and allows more hypotheses to be tested systematically. The analysis using the interaction term suggests that management quality or firm efficiency is one of the channels through which the value from access-to-finance sustainability could flow to business performance of banks. Additionally, deposit growth is also identified as another medium to which sustainability value could flow to banks' financial performance. Inclusion of the interaction term in this study helps us to understand how this positive sustainability is being channelled to the business performance of banks.

Thirdly, by applying the threshold regression estimation method suggested by Hansen (2000), we find that there is significant sample split when bank size is used as a threshold variable. In other words, the varying degrees of bank size (large or small) have effect on the ROE of banks. Banks with total assets of lower than USD 2.07 billion experience significantly positive impact of access to finance on their ROE. However, the size threshold is not significant for environmental financing.

This study controls for the type of banks whether Islamic banks or conventional. It also considers both the bank-specific variables and the macroeconomic variables. Finally, this study takes into consideration reliability and comprehensiveness of dataset. We use MSCI (previously merged with KLD) as our source of sustainability data, which is the latest and in-depth social and environmental database used for the reference and datapoint. Unlike Bloomberg and Thomson Reuters which do not account for the materiality of ESG issues in different sectors, MSCI ESG database classifies the ESG issues based on their materiality in different sectors. For example, while GHG emission may be material for manufacturing sector, it is immaterial for the banking sector. Furthermore, we have preferred the MSCI ESG over other database like Sustainalytics because it is much broader in terms of coverage. The database uses a comprehensive approach that sources data from governments, NGOs, company's disclosure such as sustainability reports and more than 1600 media sources that are monitored daily. This allows the index to identify risks and opportunities facing a company in comparison to its peer in the same industry, as well as enabling a cross regional analysis across all market capitalization size, style segments and combinations (MSCI, 2016). The MSCI index is monitored and quality reviewed by conducting a systematic

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communication with the issuers to establish the accuracy of collected data. Such in-depth review is done throughout the rating process. Mattingly and Berman (2006), have described the MSCI ESG database as "the standard for quantitative measurement of corporate social action" (p. 28). The use of a database with the above features suggest that our dataset is both reliable and comprehensive. MSCI data has been widely applied in the literature by researchers and academicians examining the relation between social responsibility and financial performance (e.g., Graves and Waddock, 1994; Turban and Greening, 1997; Mattingly and Berman, 2006; Godfrey et al., 2009; Eccles et al., 2014).

(Source: Nizam et al. (2019). The impact of social and environmental sustainability on financial performance: a global analysis of the banking sector. Journal of Multinational Financial Management, Vol. 49, pp. 35-53)

    (i)   Based on the excerpt, discuss the research problem and objectives.   (8 marks)

    (ii)   From your opinion, will you consider company's social and environmental practices in making your investment decision?   (6 marks)

(b) Differentiate between the analysis of technical charting and fundamentalist.   (6 marks)

(c) Explain real estate investment trust (REITS).   (5 marks)

QUESTION 2 (25 marks)

(a) Discuss efficiency market hypothesis and its implication to the investment decision.
    (10 marks)

(b) Illustrate an example of semi-strong form efficient market hypothesis test.
    (6 marks)

(c) Discuss how investor decisions are affected by sentiment. Give an example of sentiment construct.   (9 marks)

QUESTION 3 (25 marks)

(a) Explain the variables under each of following models.
    (i)   Fama-French 3-factor model.   (4 marks)
    (ii)   Fama-French-Carhart model.   (4 marks)
    (iii)   Fama-French 5-factor model.   (4 marks)
    (iv)   Behavioral asset pricing model.   (4 marks)

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(b) Explain how fusion investing unlocks investment values.   (9 marks)

QUESTION 4 (25 marks)

(a) As the result of the evolution in financial technology, the two alternative financing platforms below are developed. Explain each of them.

     (i)   Equity crowdfunding   (6 marks)
     (ii)   Peer-to-peer lending   (6 marks)

     From your opinion, would these two platforms be effective in assisting small-and medium enterprises in Malaysia to raise capita?   (6 marks)

(b) Explain how fintech change your investing behavior.   (7 marks)

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